



VERMONT

AGENCY OF AGRICULTURE, FOOD & MARKETS



2017 Annual Report

www.Agriculture.Vermont.gov



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Born on a quiet Vermont hill side during a breezy summer day in 2007, #CloverCow has been representing the Vermont Agency of Agriculture, Food & Markets since 2009! Clover gladly represents our working dairy farms in Vermont, and the Agency's core mission of support for family farms and Vermont agriculture.





Agency of Agriculture Mission Statement

The Agency facilitates, supports and encourages the growth and viability of agriculture in Vermont while protecting the working landscape, human health, animal health, plant health, consumers and the environment.

About the Agency of Agriculture

The Agency of Agriculture, Foods and Markets is involved in all aspects of agriculture in the state. The Agency regulates, develops and promotes agriculture and agricultural products in Vermont. The Agency currently has 112 classified employees, four exempts and twenty-four paid temps and interns.

Offices:

- Our main office is located at 116 State Street in Montpelier
- Our Water Quality and Agriculture Development teams are stationed at the 94 Harvest Lane Office in Williston
- We also have temporary laboratory facilities in Berlin at 322 Industrial Lane, and in the Hills Building, 105 Carrigan Drive on the University of Vermont campus. The state has broken ground on a new lab facility in Randolph.



The Agency is organized into four divisions:

- The **Administration Division** oversees and coordinates agency policy and promotes interests of consumers and producers.
- The **Agricultural Development Division** plays a critical a role in developing local, regional, national and global markets for Vermont's agricultural products.
- The **Agricultural Resource Management Division** regulates pesticides, feed, seed and fertilizers. The division administers Vermont's agricultural water quality programs and enforcement of environmental and safety laws.
- The **Food Safety and Consumer Protection Division** is organized into the following sections providing oversight in the areas of: livestock and poultry heath, consumer safety and protection, dairy inspection, and meat and poultry inspection.

From The Secretary



Anson Tebbetts is a life-long Vermonter born in Cabot, Vermont. He and his family still live on the family farm along Tebbetts Road in Washington County. His parents and grandfather ran a traditional dairy, converting to an organic operation until his father's death in 2001.

Still waking up every day before sunrise, Anson cares for an assortment of critters on the farm. Anson, along with a talented agency staff, are dedicated to ensuring that agriculture continues to be a viable option for future generations. We are focused on growing the rural economy, making Vermont more affordable and taking care of Vermont's most vulnerable.

“Farming is a tradition in Vermont. Our working landscape is critical to our future. Barns and sugar houses dot our landscape as they do in few other states. Vermont would not be Vermont without agriculture and without our farms and farmers. This has been true for generations, and we are committed to a vibrant agriculture economy.”

“We will need to keep our foot on the gas pedal to keep our landscape vibrant and healthy. Water quality is at the forefront of our work at the Agency and countless farms around the Green Mountains. Millions of dollars are being spent by Vermont, the federal government and farmers to improve water quality. The concern over the health of our water-ways and the impacts of agriculture practices on them led to the creation of Required Agricultural Practices (RAP's) in December of 2016. RAP's standardize farm operations that improve water quality, and holds each farm accountable.

“My door is always open to anyone who wishes to discuss ideas that can improve agriculture in Vermont. I'm strongly committed to collaboration, and hope that we can all continue to support hard working Vermonters that keep our state's tradition of open lands and farms alive for us all to enjoy.”

Anson Tebbetts

Secretary, Vermont Agency of Agriculture, Food & Markets

Leadership Team

Administration

Anson Tebbetts, Secretary
Alyson Eastman, Deputy Secretary
Diane Bothfeld, Director of Administrative Services IV
Thea Schwartz, Assistant Attorney General for Agriculture, Food, and Markets
Marcey Hodgdon, Director of Finance
Hunter Thompson, IT Director
Scott Waterman, Director of Communications and Policy
Terry Smith, Executive Assistant
Stephanie Smith, Chief Policy Enforcement Officer

Food Safety & Consumer Protection

Dr. Kristin Haas, State Veterinarian & Division Director
Dr. Kathy McNamara, Assistant State Veterinarian & Deputy Division Director
Dr. Shelley Mehlenbacher, Assistant State Veterinarian & Animal Health Section Chief
Henry Marckres, Consumer Protection Section Chief (retired September 30)
Randy Quenneville, Meat Industry Section Chief
E.B. Flory, Dairy Industry Section Chief

Agricultural Resources Management

Director Jim Leland (retired December 22nd)
Laura DiPietro, Deputy Director
Guy Roberts, Lab Director
Cary Giguere, Pesticides Regulation Section Chief
Tim Schmalz, Plant Industry Section Chief
Nate Sands, Ag Water Quality Section Chief
Rob Achilles, Engineering Section Chief

Agricultural Development

Laura Ginsberg, Business Development Section Chief
Abbey Willard, Food Systems Section Chief



Executive Summary

Vermont's agriculture industry continued to be a significant economic engine for the state in 2017. Vermont dairy receipts totaled \$504,884,000 million which accounted for 65% of Vermont's total agriculture receipts. (USDA National Ag Statistics). In total, Vermont agriculture was responsible for \$776,105,000 million dollars in receipts, highlighting the importance of the industry to Vermont's financial picture. Challenging milk prices continue to impact Vermont's dairy farmers. In January 2016, the state was home to 878 dairies. By December that year, the number had fallen to 841.



As December 2017 closed, the number had again fallen to 836, with 796 active cow dairies, 34 goat dairies and 6 sheep dairy farms. The number of cows in the state and the volume of milk we produce has remained steady, however, as farms find new and innovative ways to become more efficient. By far, dairy remains the most prominent sector of our agriculture economy, representing 70% of Vermont agricultural sales, and 80% of our total farm land.



The State invested \$17 million in related water quality projects across all sectors in 2017. As part of this investment, the Vermont Agency of Agriculture devoted 5.2 million in technical and financial assistance, engagement and outreach, rules and regulation, and inspection and enforcement, making it the biggest water quality investment in the history of Vermont.

In 2017, Vermont maple syrup was abundant, with 1.98 million gallons produced. This is the second highest total on record. However, the price per gallon continues to see downward pressure. In 2016 the Vermont average price per gallon was \$30.00, down \$3.00 from 2015. The value of production and average price per gallon of the 2017 production will be available in June 2018.



*Source: [USDA NATIONAL AGRICULTURAL STATISTICS SERVICE](https://www.nass.usda.gov/)



This report outlines the major accomplishments of the Vermont Agency of Agriculture, Food, and Markets for the Fiscal Year ending June 30, 2017. The narratives below provides facts and figures along with in-depth information about the initiatives and efforts made by the Agency.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Administration Division

- Secretary Tebbetts traveled the state to engage in a listening tour to hear issues impacting Vermont's agriculture community
- The agency supports the Governor's agenda with ideas that impact economic growth, protecting the vulnerable, and increasing affordability
- The Agency continued customer service improvement efforts emphasizing that service to Vermonters is of utmost importance.

DIVISION MISSION

The Division of Administration oversees and coordinates agency policy and promotes the interests of consumers and producers.



SECRETARY'S OFFICE

With his appointment as Secretary in January of 2017, Anson Tebbetts has brought a lifetime of agricultural experience to the Agency. His mission as Secretary is to support the hard-working Vermonters that make up the state's agricultural community, in as many ways as possible. His years as a dairy farmer on the Cabot family farm give him an important perspective as Secretary, and his career as a Vermont television journalist have proven invaluable in connecting with Vermonters impacted by the Agency.

Secretary Tebbetts's listening tour took him to every corner of the state in FY2017, with the focus of service and attention to individual concerns being paramount. Secretary Tebbetts has continued to grow and focus this effort in FY2018, by continuing to visit many areas of the state to listen and engage Vermont's agricultural community.

BUSINESS OFFICE

The Business Office continues to seek out new ways to improve efficiency and service delivery. They are focused on honing processes and working smarter, in an effort to increase capacity.

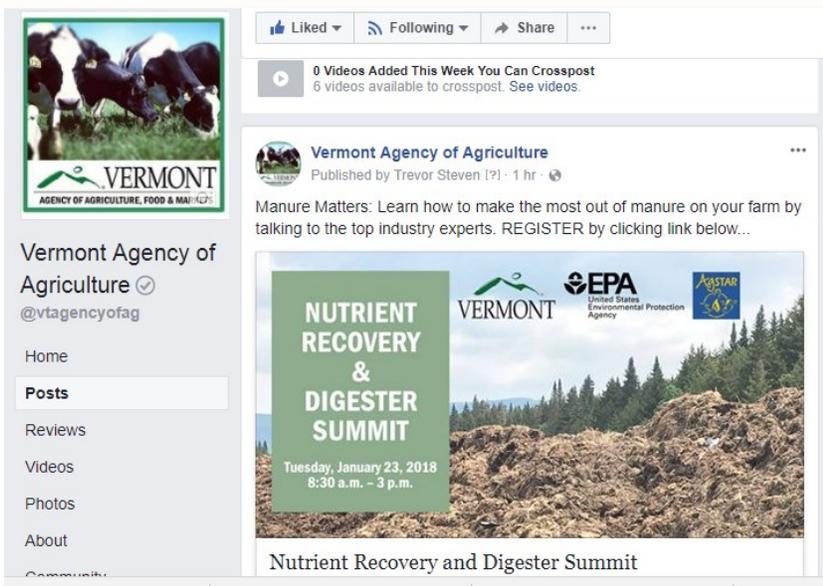
Vermont Agency of Agriculture, Food & Markets

Division Narratives

Administration Division

COMMUNICATIONS

FY2017 saw an increase in social media messaging and inter-agency collaboration. The importance of message creation has become a vital mission for the agency, to reach the agriculture community with the most important messages in the clearest manner, with the most complete information.



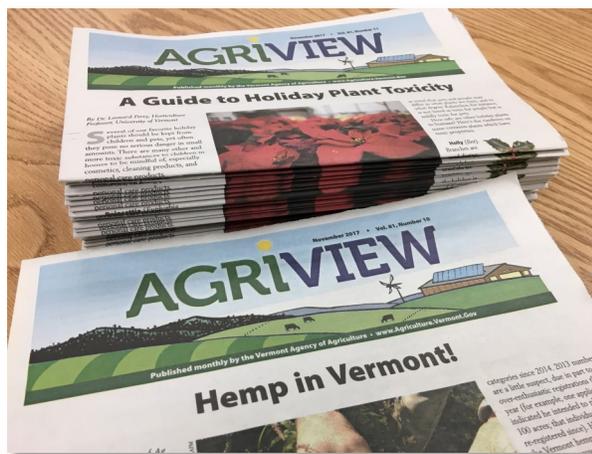
VAAFM Facebook Page

AGRIVIEW

Over the years, many agriculture community members have asked for consistent and reliable news and information regarding Vermont's agricultural industry. In 2017, and in responding to these requests, in FY17 the Agency launched an initiative to mail complimentary copies of our monthly agricultural print publication - Agriview - to farmers and producers throughout Vermont.

The goal of this Agriview initiative is to make sure that all members of our Vermont agricultural community have equal access to the information they need to stay abreast of changing regulations, to get help and answers to questions, to identify and take advantage of available resources, and to stay connected to our agriculture community.

We have also expanded our online Agriview Newspaper. All the same great content in our Agriview print newspaper is now available online free of charge.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Administration Division

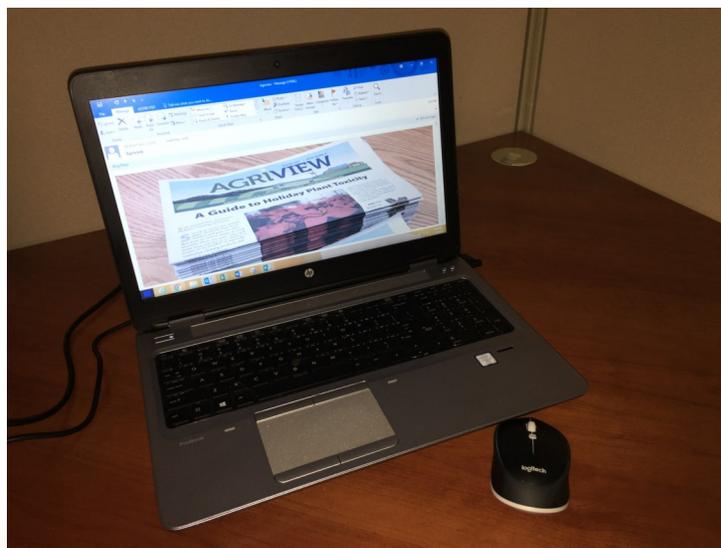
INFORMATION TECHNOLOGY

Information Technology (IT) at the Agency has undergone major change this year with the creation of the Agency of Digital Services (ADS). The IT Director, Hunter Thompson, was one of the state government IT leaders tasked with standing up the new agency. The Agency IT team has joined the Shared Services and Office365 CAB which aims to provide a forum for changes that impact all of state government to be vetted and approved. The team is also a member of the new GIT workgroup created to address the changing needs of GIS technology in state government.

In conjunction with the Agency business unit, Chris Bliven has worked to design, test, and implement an online application to register and track produce growers across the state. His work has proven so successful that other states have contacted Vermont to ask about the solution they are implementing.

One Drive For Business was enabled for the Agency. This was a collaborative process between IT, VSARA and our legal team. We implemented policy and procedure and that enabled us to turn on the associated technology.

The membership of the team has ebbed and flowed. IT is in the process of recruiting a new geographic information service (GIS) resource to continue the push toward an online mapping solution.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Development Division

DIVISION MISSION

The mission of the Agriculture Development Division is to meet the needs of Vermont's agricultural community through consumer and producer education, facilitation of connections to resources and markets, investment of financial and technical assistance, and promotion of Vermont-made products. Our programs achieve this mission through:

- promoting Vermont agriculture,
- investing in Vermont agricultural business viability with financial and technical assistance;
- connecting VT agricultural businesses to resources and market opportunities;
- increasing access to local foods to support vibrant and viable communities; and
- protecting and enhancing the working landscape.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Development Division

PRODUCE PROGRAM

- Staff engaged with the FDA under a 5-year cooperative agreement of \$3.625 million dollars to develop a state-led Vermont produce safety program.
- Agency staff have provided produce growers information about the FDA Food Safety Modernization Act (FSMA) Produce Safety Rule and Vermont Produce Program.
- The Agency awarded \$100,000 to UVM Extension, funded by FDA cooperative agreement, to provide produce safety technical assistance to interested produce growers.

The Vermont Produce Program further developed its outreach, education, and technical assistance offerings to the Vermont produce industry and began development of the compliance and enforcement arm of the program in cooperation with the Food Safety & Consumer Protection Division. The program hired a Communications Coordinator and an Outreach & Education Coordinator to ensure Vermont fruit and vegetable growers are aware of the FDA Produce Safety Rule and can access resources to understand their requirements under the rule.

In addition, the Produce Program launched the Vermont Produce Safety Improvement Grants program, funded by the State of Vermont, to help Vermont produce growers make improvements that prevent or reduce known produce safety risks on their farms. The Agency will award eight Produce Safety Improvement Grants totaling \$74,000 in December 2018.

In FY2017, the Vermont Specialty Crop Block Grant Program, funded by the USDA-Agricultural Marketing Service, awarded grants totaling \$254,000 for seven projects to benefit Vermont producers of fruits, vegetables, herbs and spices, maple, wine grapes, and value-added products and to increase consumer access to locally produced food.



Vermont is home to a robust produce industry with a regional reputation for quality, integrity and excellence. Comprised of roughly 1000 farms growing produce with over 4,000 acres in production, Vermont's vegetables, fruits and crops generate over \$34.8 million in sales annually according to the most recent Census of Agriculture.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Development Division

FARM TO SCHOOL PROGRAM

- Over \$121,000 in grants and technical supports were awarded to 13 schools, representing 10 Vermont counties
- More than 400 participants attended the VT Farm to School conference in November 2016
- At least 960 Vermont students were able to eat at least one meal per day at school through the universal meals pilot program, funded through the VT Farm to School Grant program

In FY2017, the Vermont Farm to School Program went through a very positive transition, providing grantee schools with even more effective programming support. With the addition of a Universal Meals component to the program, almost 1,000 students are now eating school meals at no charge; many of those meals made with Vermont products. Additionally, the Farm to School grant program engaged in a strategic planning process, including the feedback and ideas of dozens of farm to school stakeholders including: nonprofits, teachers, principals, superintendents, farmers, Agency of Education, and Department of Health. As a result, the rollout of the FY2018 Vermont Farm to School Program included the most comprehensive support services offered to grantee schools. The quality of the nearly 50 applications for the latest grant round were the highest yet, a reflection of the advanced state of farm to school in Vermont, which is made possible through many partnerships, especially those between the Agency of Agriculture, Agency of Education, Department of Health, and statewide and community support organizations.

By increasing equitable access to fresh, nutritious foods for all Vermont students, regardless of their income or background, and by creating new economic opportunities for Vermont producers and processors, the Vermont Farm to School Program's mission is also well aligned with the strategic goals put forth by the 2017 State of Vermont Administration.



Governor Scott Celebrates Vermont's Farm To School Grant Program With Students From Fairfield Center School

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Development Division

MARKET ACCESS / LOCAL FOOD PROMOTION & EDUCATION

- Marketing activities in Agriculture Development utilize a diverse array of strategies to ensure that producers and consumers are aware of opportunities available to support Vermont agriculture.
- Managing the Vermont Building at the Big E, with 30 vendors selling products (with sales of \$1.8 million) and event attendance of 1.52 million individuals, is a major year-round focus.
- In FY2017, the trade show assistance grants awarded \$25,850 in funding for businesses to attend 8 different trade shows across the United States. Businesses generated a total of 675 sales, \$5,500 in sales at the shows, and project an additional \$680,000 in sales with the leads generated.
- Increased collaboration among state and regional partners has grown Vermont farm and business exposure online, creating new channels to reach locals and tourists alike.

The marketing access program at the Agency of Agriculture, utilizes a variety of tools to support Vermont businesses and raise consumer demand for Vermont products across the globe. Our programs are designed to touch on a variety of geographic segments such as local, regional, national and international markets and support businesses at various stages in their business development. Market segments include, CSA and farmers' market support, national and international trade show technical and financial assistance, and regional events such as the 'Big E' and Summer Fancy Food Show.



The Vermont Building on the Avenue of States at the "Big E" Eastern States Exposition in West Springfield, Massachusetts, is always a popular attraction for over one million fairgoers who return year after year to eat, drink and shop the best Vermont has to offer.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Development Division

MARKET ACCESS / LOCAL FOOD PROMOTION & EDUCATION

Vermont Products Win Big at the 2017 Fancy Food Show



Congratulations to Vermont's 2017 sofi Winners!



Vermont Creamery
Big Picture Farm
Champlain Chocolates
Mt. Mansfield Maple
Fat Toad Farm
Small Batch Organics



And the delicious winners are...

- **Vermont Creamery's** Vanilla Creame Fraiche won a gold medal in the "Dessert, Sauce or Topping, Syrup" category (Websterville, VT)
- **Vermont Creamery's** St. Albans Cheese won best new product in the "Cheese – Cow Milk" category (Websterville, VT)
- **Vermont Creamery's** Bonne Bouche won a silver medal in "Cheese – Non-Cow Milk, Mixed Milk" (Websterville, VT)
- **Vermont Creamery's** Cultured Butter with Sea Salt Crystals won bronze in the Dairy/Yogurt/Dairy Alt. category (Websterville, VT)
- **Big Picture Farm's** Chocolate Covered Caramels won a silver medal in the "Chocolate Candy" category (Townshend, VT)
- **Champlain Chocolate's** It's Hot, Honey Chocolate took bronze in the "Chocolate – Dark" category (Burlington, VT)
- **Champlain Chocolate's** Moka Fleck Chocolate won a bronze and also best new product in the "Chocolate – Milk and White" category (Burlington, VT)
- **Mt. Mansfield Maple's** Organic Pure Vermont Maple Candy won silver in the "Confection" category (Winooski, VT)
- **Fat Toad Farm's** Bourbon Barrel Aged Hard Cider Goat's Milk Caramel Sauce won best new product in the "Dessert, Sauce or Topping, Syrup" category (Brookfield, VT)
- **Small Batch Organics'** Toasted Coconut Ginger Granola won bronze in the "Granola, Cereal" category (Manchester Ctr, VT)

Sofis ("specialty outstanding food innovation) are the most prestigious awards in the specialty food industry and honor excellence across a variety of food categories. Winners are selected at the Specialty Food Association headquarters in

New York City by a national panel of culinary experts. The 2017 judging panel was comprised of 62 seasoned food professionals from across the country, including trained chefs, culinary instructors, recipe developers, food writers and specialty food buyers who are experts in particular categories such as cheeses, oils, chocolates, etc. Vermont-made products wowed the judges in 2017 at the Fancy Food Show in New York City, scoring eleven "sofi" medals at the world-renowned show - the largest specialty food industry trade event in North America!

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Development Division

WORKING LANDS ENTERPRISE INITIATIVE (WLEI)

- Ever increasing demand for funding and additional board and applicant education led to a large, high-quality pool of applications across the agriculture and forestry spectrum.
- The Agency received 87 applications requesting \$2.7 million in grant funding IN FY2017. 19 projects requesting a total of \$680,000 was approved.
- Successful press events and high-impact projects funded in past rounds mean that applicants expect competition and submit funding requests that will lead to substantial investments and growth in their businesses, furthering the mission of the Working Lands Enterprise Initiative.

The Working Lands Enterprise Initiative (WLEI) has supported the cultures, communities, and economies here in VT since 2012 and has invested over \$4.5 million dollars in 149 projects impacting every county of the state, leveraging over \$7.5 million in additional funds. In Fiscal Year 2017, high quality letters of intent and applications were submitted to the Working Lands Enterprise Initiative, resulting in decisions to invest these public investment dollars into 19 business and service provider projects, for a total of \$680,000. In May 2017, the Working Lands Enterprise Board convened with grantees of past and present for a celebration and networking event to recognize successful projects and debrief on lessons learned. This grant program continues to support the creation of jobs, increased production, increased income, increase acreage in working lands production and increased quality of life for our working lands businesses here in VT, and the demand and need going into the FY18 funding cycle remains strong.



Governor Phil Scott, Agriculture, Food & Markets Secretary Anson Tebbets, Deputy Commerce & Community Development Secretary Ted Brady, Forests, Parks & Recreation Commissioner Michael Snyder, and the Working Lands Enterprise Board awarded \$680,000 in grants to 19 agriculture and forest sector businesses and service providers in one day last year. The Working Lands Enterprise Initiative has distributed over \$3.8 Million in grants since its inception in 2012, leading to an additional 428 jobs and \$18.1 million in sales.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

DIVISION MISSION

The Division of Agricultural Resource Management (ARM) regulates all pesticides, feed, seed and fertilizers. The division administers Vermont's agricultural water quality programs and enforcement of environmental and safety laws. The division also oversees vector management, pathology, entomology, export certification, nurseries, pest survey, and the Ag and Environmental lab.

PLANT INDUSTRY SECTION - HEMP PROGRAM

- **The industrial hemp program continues to expand year-over-year. Interest in hemp is driven by the CBD market, by oilseed interests, grain, and fiber applications. Interest in medicinal and potentially recreational marijuana continues to add complexity to the hemp program, which is expected to increase in 2018.**

The industrial hemp program continues to expand year over year. Efforts to develop a sampling and analytical program within the AAFM were investigated in 2017; we offered a voluntary sampling and analytical program for registered growers, but costs to participate and uncertainties around possible criminal liability tended to squelch interest before that program got off the ground. Other obstacles to expansion of the hemp program include difficulty in sourcing certified seed, finding stable processors and markets, challenges in obtaining organic certification, and questions surrounding legal liabilities associated with the 'other' cannabis – marijuana. Most of these challenges are attributable to the conflict between existing Federal laws on cannabis and the unwillingness of the Federal government to engage with states in a meaningful way to resolve these conflicts. Locally, ongoing legislative efforts to legalize recreational marijuana in Vermont have spurred interest in the hemp registry, as curious citizens and farmers continue to seek opportunities and advantages in that potential marketplace.

Industrial Hemp



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

PLANT INDUSTRY SECTION - VECTOR MANAGEMENT

- In 2017, the section underwent significant (50%) personnel turnover. Both the State Entomologist and the Vector Management Coordinator positions were replaced due to retirement and departure for other positions.
- The statewide deer tick survey project continued in the spring and fall. This represents the third year of this effort, and is expected to conclude in the Spring of 2018 by having visited all Vermont towns. Collected ticks are analyzed for Lyme disease, Anaplasmosis, Babesiosis, Powassan virus, and *Borrelia miyamotoi*, all of which have been detected in tick samples in Vermont already.

Continued precipitation throughout the 2017 summer season resulted in increased mosquito pressure and survey intensity across the state. Our activities included light, gravid and resting box trapping for a variety of mosquito disease vector species. Of special interest is the vector of Eastern Equine Encephalitis (EEE), *Culiseta melanura*, but we collected and analyzed several other species as well. No EEE was detected in mosquitoes in 2017. However, we did find West Nile Virus (WNV) in samples across the state. These activities are supported by the Department Health Epidemiology program and the VDH lab.

PLANT INDUSTRY SECTION - MOSQUITO CONTROL

Mosquito control efforts in the mosquito control districts (MCD), which includes the towns of Brandon, Leicester, Salisbury, Goshen, Pittsford (BLSG MCD), and Weybridge, Cornwall and Bridport (Lemon Fair MCD), included ongoing survey and larvicide applications, both ground based and aerially. In 2017, over 5000 acres of inundated fields and forests were treated with *Bacillus thuringiensis* (Bt) larvicide. These efforts are undertaken by the districts, but are supported financially through general fund allocations (between \$25,000 and \$250,000 annually depending on rainfall and flooding) and by AAFM technical support and oversight.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

VECTOR MANAGEMENT FACTS & FIGURES

MOSQUITO SURVEY

2017 At-A-Glance Mosquito Arbovirus Data

- 89 mosquito pool samples were positive for West Nile Virus
- No Eastern Equine Encephalitis was found

2017 At-A-Glance Mosquito Surveillance Data / June 5 – October 13

- Trap locations: 103 in 14 counties
- Total towns trapped: 84
- Number of mosquitoes collected: 108,288
- Number of mosquitoes tested for arbovirus: 78,078
- Number of species collected: 26
- Number of species tested for arbovirus: 14
- The first *Culex erraticus* adult mosquito was found in Vermont

MOSQUITO CONTROL DISTRICTS

- 2018 Budgeted Amount (2 districts) – \$270,000
- 7,900 acres treated aerially in 2 treatment events (May 12, July 5-7)
- Increased adult monitoring/light trap placements throughout districts

TICK SURVEY

- 2016 - 85 towns, 14 counties, 286 ticks collected
- 2017 - 96 towns, 13 counties, 545 ticks collected



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

TICK MANAGEMENT

The ongoing statewide deer (blacklegged) tick survey project continued in FY 2017. The objective of this survey is to visit all Vermont towns, locate an appropriate site for deer ticks, conduct sampling for deer ticks, and conduct PCR testing on collected ticks for one of five tick-borne human pathogens. All collected ticks are analyzed for Lyme disease, Anaplasmosis, Babesiosis, Powassan virus, and *Borrelia miyamotoi*. Results of the 2017 sampling effort are in progress, and are not yet available. In previous years, we have detected these pathogens in deer ticks at varying levels throughout the state. The results are being used to inform additional survey and ongoing public outreach efforts in collaboration with the Vermont Department of Health.

COOPERATIVE AGRICULTURAL SURVEY PROGRAM (CAPS)

Cooperative Agricultural Survey Program (CAPS), a cooperative program between the Agency and the USDA APHIS Plant Protection and Quarantine (PPQ), conducts annual surveys and outreach activities. In 2017, survey activities included an apple commodity survey, a grape commodity survey, a bark and wood-boring beetle survey, maintained our ongoing forest pest outreach program (collaborative with Forests and Parks and University of Vermont Extension), and supported the statewide annual nursery/greenhouse inspection program. CAPS also assisted with enforcement of the Vermont Hemlock Woolly Adelgid quarantine rule, providing verification assistance for nursery and landscape businesses importing hemlock from out of state sources, and with inspection and phytosanitary certification of plants and plant products for interstate and international commerce. In the 2017 inspection season, 93 nurseries were inspected throughout the state, in all Vermont counties except Essex. Sales of Norway Maple were stopped at two local locations of a national chain. Powdery mildew was present but not more than expected given the rainy weather. Apple scab was the prevailing disease of the season and did not confine itself to nurseries.

The arborvitae bagworm, *Thyridopteryx ephemeraeformis*, was found on nursery stock sourced from outside Vermont. The material, arborvitae trees (evergreen), was delivered to sites in Grand Isle and Monkton. Initial observations indicate the pest appears to have successfully overwintered on the islands. We will continue to monitor this insect as it has the potential to become a pest.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

PLANT INDUSTRY SECTION FACTS & FIGURES

TOTAL FY2017 CAPS & ASSOCIATED PROGRAMS BUDGET = \$236,823

COOPERATIVE AGRICULTURAL SURVEY PROGRAM (CAPS) BUDGET = \$101,416

- Eight target pests of federal and state concern were surveyed for at 93 nurseries distributed in 13 Vermont counties.
- Five federal target pests were targeted in trapping surveys in 4 Vermont counties at four high volume nurseries.
- Results for both visual and trapping surveys were negative for 2017.
- Hemlock importation: total of 655 hemlocks were imported into Vermont in 2017 with accompanying phytosanitary certificates.

FARM BILL - FOREST PEST OUTREACH PROJECT = \$75,007

- Partnership project with VAAFAM and UVM-extension. UVM extension receives approximately \$50,000 from VAAFAM through grant.
- Targeted forest pest outreach throughout Vermont resulted in an estimated 4,400 people receiving direct education about invasive forest pests.
- Additional 80,000+ people exposed to forest pest educational material through outreach methods such as large event attendance and social media messaging.
- Growth of citizen volunteers—over 200 towns represented.
- Forest pest preparedness plans started in 8 Vermont communities.

FARM BILL - EXOTIC WOOD BORING BEETLE SURVEY = \$25,400

- Trapping survey for 8 federal target pests. 40 traps in 7 Vermont counties were set and maintained during the summer.
- 278 samples were collected during the survey season.
- Negative results.
- Contracted with the Carnegie Museum of Natural History for screening and identification support.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

FARM BILL - ORCHARD COMMODITY SURVEY = \$17,000

- Survey work looking for 5 federal target pests in Vermont apple orchards.
- The Plant Diagnostic Clinic at UVM received ~\$13,000 to conduct survey.
- Total of 50 traps set in at different orchards in 7 counties.
- 400 trap collections were screened for target pests.
- Negative results

FARM BILL - GRAPE COMMODITY SURVEY = \$18,000

- Survey work looking for 5 federal target pests in Vermont vineyards.
- The Plant Diagnostic Clinic at UVM received ~\$14,000 to conduct survey.
- Total of 50 traps set in at different orchards in 7 counties.
- 400 trap collections were screened for target pests.
- Negative results

OTHER SERVICES

In addition to the above programs, Plant Industry provided seed potato inspection and certification services for the 10th consecutive year following re-introduction of the program in 2007. Approximately 35 acres were in certification in 2017; about a dozen varieties of multiple generations were certified at the participating farm. Christmas trees and associated greens (wreaths, garlands, etc.) were inspected at many farms throughout Vermont in order to ensure compliance with the Federal (USDA) gypsy moth quarantine rule, as well as overseas requirements for shipment to destinations including Canada and Bermuda. The ginseng program is ongoing, and as in previous years we certified both green (fresh) and dry root for export. The firewood heat treatment program, which assists producers of firewood in Vermont in their efforts to export firewood to states with firewood rules (NY, MA, CT, ME, NH, others), enrolled one additional treatment facility in 2017, and responded to inquiries from several curious producers. We also collaborate with the Department of Forests and Parks with their external firewood rule, providing regulatory assistance when requested. The section continues to provide export certification services for consumers and companies based in Vermont. Compliance agreements maintained in Vermont included live plant shipment arrangements into California and Arizona, as well as a number of international phytosanitary certifications for one-off shipments to destinations including Canada, Jamaica, Thailand, Bermuda, South Korea and Japan.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

DIVISION MISSION

The Agricultural Resource Management Division regulates pesticides, feed, seed and fertilizers. The division administers Vermont's agricultural water quality programs and enforcement of environmental and safety laws.

WATER QUALITY

More than 1.2 million acres of Vermont land is devoted to farming, and agriculture is one of our most important industries. As a whole, agriculture preserves open land, provides healthy local foods, and is an essential part of Vermont's identity.

At the same time, Vermont's waters are critical to the state's economy and to residents' quality of life. The Water Quality Program within the Agency of Agriculture, Food and Markets (VAAFAM) utilizes education, research, regulations, monitoring, compliance and enforcement while providing technical and financial assistance to farmers that simultaneously promote the long-term viability of farms and the health of our state waterways.

Education, engagement and outreach remain critical tools to ensure agricultural environmental regulations are understood and followed by farmers. In FY2017, the Water Quality Program held 93 water quality education and outreach events and provided 25% more hours of individual instruction to farmers – totaling over 5,000 hours.



Providing technical and financial assistance to farmers to support their compliance with water quality standards and improve water quality on their farms was marked by an expansion in engineering staffing levels to design and facilitate implementation of these practices, project applications from farmers wanting to participate in the program and total dollars obligated. In FY2017 over \$1.3 million was awarded through 30 Best Management Practices (BMP) grants which installed 79 total projects including waste storage facilities, barnyards, and silage runoff collection systems.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

WATER QUALITY (cont.)

The Water Quality Program promulgates new rules as deemed necessary by the Agency or are required by law and revises and/or renews existing rules and permits based on new information, scientific research, and experience to date. The goal of this effort is to create meaningful and enforceable regulations which result in increasing compliance rates over time. To this end, the Required Agricultural Practices (RAPs) were amended by Rule, effective December 5, 2016. Further, the Water Quality Program submitted the Final Tile Drainage Report in conjunction with the Agency of Natural Resources as required by the Legislature in Act 64 of 2015. The Agency began revisions of the Medium Farm Operations (MFO) General Permit – a standard process which occurs every five years per the MFO Rule.

Ensuring accountability and accurate reporting of efforts undertaken by the water quality program and farmers is a major effort within the program. Accurate and thorough accountability will ensure public trust that Clean Water Funds are being allocated to the most effective areas to improve water quality. To do this, the water quality program creates, measures, and reports on key metrics of success for the Program's work.

Act 64 of 2015 allocated additional staffing resources to ensure agriculture in Vermont meets water quality standards laid out in the Act. Program leadership worked to increase both the capacity of existing staff and the appropriate number of staff needed to be successful in new and added legislated responsibilities. While some gaps remain, the goal of the program is to increase staff to levels needed to fully support technical and engineering services, outreach and engagement, permitting & inspection programs, and enforcement. In service of this goal the Program hired five new water quality staff plus on boarded a new AmeriCorps member in 2017.

Technology remains a crucial tool to ensure the full extent of the agricultural landscape is understood by the Program and appropriate resources can be deployed to support farmers to achieve compliance with regulatory standards outlined by the Agency. To do this, the Program advances

Agency staff assisting the Holyoke Farm with water quality project.....



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

WATER QUALITY (cont.)

and deploys technologies to improve efficiency, consistency, and availability of data for staff, farmers, and partners. In support of this, the Water Quality Program developed a 'Partners Database' to provide for consistency in multi-partner and Agency conservation planning, implementation and tracking. The Program was presented with a national award from Environmental Systems Research Institute (ESRI), an international supplier of geographic information system (GIS) software, web GIS and geodatabase management applications, for the Special Achievement in GIS (SAG) Award for the development of the 'Partner Database'.

The Water Quality Program receives funding from the Clean Water Fund to provide additional state funds to help farmers implement actions that will reduce pollution washing into Vermont's rivers, streams, lakes, ponds and wetlands. One way the Water Quality Program delivers these funds is through the Agricultural Clean Water Initiative Program (Ag-CWIP) which supports partner organizations to deliver Innovative Phosphorus Reduction Strategies, technical assistance direct to farmers, as well as expand their organizational development. \$1,718,000 in state funding was obligated through Ag-CWIP grants in FY2017. Some focus areas of partner grants include evaluating farm viability and finding alternative farm strategies when water quality costs needed for a current operator to meet water quality standards are excessive, a manure transfer and assessment program to better distribute manure across the landscape, also on farm Technical Assistance is being provided by farmers ahead of the Agency inspection process.

Agency staff assisting the Holyoke Farm with water quality project.....



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

WATER QUALITY SECTION FACTS & FIGURES

- Provided technical assistance, early planning, and coordination to farmers and providers, and awarded grants for action and innovation.

Total Grants Obligated: \$1,718,000 /49 Projects Funded

- Invested in and enhanced outreach and engagement to build partnerships, expand participation, increase compliance, and identify connections with local, state, and federal agencies. In FY17, there were:

93 Water Quality Education and Outreach Events reaching...

3137 Farmer, Partner, and Public Attendees, including...

13,111 Total Hours of Individual Instruction

- Promulgated new rules as deemed necessary by the Agency or required by law and revised and renewed existing rules and permits based on new information, scientific research, and experience to date.

- Conducted farm inspections using established procedures and practices in a clear, consistent, and meaningful way to advance compliance with our water quality rules and regulations. In FY17 there were:

164 Inspections

160 Compliance Checks

150 Farm Complaint Investigations and Enforcement Visits

474 Total Inspection Visits

- Standardized enforcement procedures and practices and exercised enforcement authority in a clear, consistent, and meaningful way to advance compliance with our water quality rules and regulations. Actions in FY17 include:

218 Reviews (% not requiring enforcement review)

100 Reviews (% resulting in compliance)

118 Reviews (% resulting in compliance)

81 Enforcement actions Issued

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

WATER QUALITY SECTION FACTS & FIGURES

- Increased both the capacity of existing staff and the appropriate number of staff needed to be successful in new and added legislated responsibilities by hiring five new water quality staff plus on-boarded a new AmeriCorps member
- Advance technologies to improve efficiency, consistency, and availability of data for staff, farmers, and partners.
- ARMS-WQ was presented with a national award from Environmental Systems Research Institute (ESRI), an international supplier of geographic information system (GIS) software, web GIS and geodatabase management applications} for the Special Achievement in GIS (SAG) Award for the development of the 'Partner Database'



Cattle graze a hillside overlooking a small pond in Hinesburg, VT.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

VERMONT AGRICULTURE AND ENVIRONMENTAL LABORATORY (VAEL)

In September 2011, the Agency's laboratory, part of the Waterbury Complex, was flooded by Hurricane Irene. Since then, the Agency of Agriculture and the Vermont Department of Environmental Conservation have worked together to merge their respective labs, which became effective July 2015. On December 1, 2017, the new lab construction site broke ground at Vermont Technical College in Randolph. Completion is expected in 2019.

The primary focus of VAEL in FY 2017 has been to upgrade the 'fleet' of aging laboratory instruments, many of which had exceeded their normal life expectancy and required frequent repairs. This became a significant impediment to normal lab function. Laboratory instruments are expensive purchases; finding funds to cover VAEL's needs was expected to be a challenge. VAAFMs adjustments to the fee bill in FY2016 created an increase in revenues of close to \$450,000. VAEL worked closely with VAAFMs business office and Deputy Secretary Jolinda LaClair to justify a one-time use of these revenues in FY 2017 towards instrument purchases. These funds were used to purchase 12 new instruments, strengthening every section of the lab. Other FY17 facts & figures include:

- **11 analytical staff, 2 supervisors, 1 director**
- **Current lab space at UVM: 8,177 sqft**
- **Former lab space in Waterbury: 15,855 sqft**
- **Lab space to be built in Randolph: 12,796 sqft**
- **In FY 2017, 12 of the lab's 36 scientific instruments were replaced with upgraded versions.**
- **VAEL performed 36,094 analyses, including:**
 - **8400 Dairy tests**
 - **2850 tests for Animal Health**
- **64 pesticide enforcement samples were analyzed in FY 2017 vs. 19 in the previous FY.**
- **Over 900 ticks were tested for Lyme disease and 2 other tick-borne infectious agents using highly sensitive DNA detection methods.**
- **VAEL provided services for 78 client projects:**
 - **38 DEC Projects**
 - **24 AAFM Projects**
 - **18 non-agency projects (Stone Environmental, UVM, Norwich U, etc.)**

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

VERMONT AGRICULTURE AND ENVIRONMENTAL LABORATORY (VAEL)

VAEL was also audited by two accrediting agencies in FY 2017. While VAEL successfully processes nearly 30,000 samples per year, a small percentage of the test results are reported to customers beyond the expiration time, or “hold time”, showing that VAEL’s operation could be still more effective.

Accreditation requirements have also become more stringent as accrediting agencies generally seek to match ISO 17025 standards. VAEL’s administration reviewed the general nature of the audit findings to determine whether systemic problems could be identified. Several areas for improvement were found:

- The lab’s interim Quality Assurance officer, Daniel Needham, has been overburdened with lab responsibilities. VAEL has created a QA committee to take on specific roles, including conducting the required annual internal audits.
- The laboratory’s Standard Operating Procedures (SOPs) need a general overhaul to use more standardized format and terminology. In FY 2018 VAEL’s analysts will be rewriting their SOPs following the standard 24-point format.
- A web-based tool must be created for logging and reducing the frequency of lab “irregularities” (a general term for problems that arise through sample submission or handling that impact normal lab procedures).
- Update VAEL’s Quality Management System Manual to make it more user friendly for staff and clients.
- Create a client agreement form that clarifies the roles and expectations of the lab and the client.

VAEL provides analytical services to the Vermont Agency of Agriculture, Food & Markets (AAF&M), the Vermont Agency of Natural Resources (ANR) and, by contract, with other organizations.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

VERMONT AGRICULTURE AND ENVIRONMENTAL LABORATORY (VAEL)

For each of the above points, the lab has made headway towards implementing new tools and strategies to improve the lab's performance. The challenge remaining is to see whether these additional responsibilities can be absorbed by the lab staff without having impact on other aspects of lab performance.

Meeting the new International Organization for Standardization (ISO)-based standards for VAEL's accreditation requires implementing systems for electronic record-keeping, and performance reporting that, ideally, would be built into the software package used by the lab for information management (LIMS). VAEL's current LIMS system has no such capacity, so in FY 2017 VAEL's admin team developed a strategy for meeting these new accreditation requirements. The planned approach is two-fold:

- **design and update procedures for record-keeping and performance review that meet the ISO standards,**
- **initiate a Request for Information (RFI) process to determine the capabilities and cost of a LIMS system that could improve the effectiveness of the laboratory and better meet accreditation standards.**

Towards the record-keeping goals, VAEL staff worked with the AAFM IT Director to build an irregularity tracking tool to log irregularity events and assign the investigation of the root cause to a staff member. Each event is logged into a list that allows each event to be reviewed and followed up by the QA officer. The tool is somewhat rudimentary, but will be improved as the LIMS is updated.

A LIMS RFI was submitted through BGS in December of 2016. Six software vendors responded with descriptions and demonstrations of their LIMS software. The findings from this RFI allowed lab management and AAFM's IT director to determine that the currently used LIMS software is obsolete in a number of critical areas. These findings have triggered an effort to pursue the purchase of a new LIMS package.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Agriculture Resource Management Division

VERMONT AGRICULTURE AND ENVIRONMENTAL LABORATORY (VAEL)

OTHER SERVICES

VAEL's dairy lab assures consumers that dairy products produced in Vermont are safe and of a high quality. Similarly, the air, water and soils testing done at VAEL is a critical piece in informing Vermonters about the quality of their environment. VAEL's work is usually unseen by the public, since our clients typically report our results without mention of the lab's role.

VAEL does, at times, provide technical assistance directly to the public and private sectors; we routinely accept and analyze samples from dairy farmers seeking to informally validate that modifications made to their operations (for example, repairs to a bulk tank) have not impacted the quality of their products. These informal tests are typically done free of charge for the farming community. VAEL's Laboratory Evaluation Officer (LEO) program provides further assistance to the industry by ensuring that the staff of the state's private dairy labs are proficient in their work.



VAEL Director Dr. Guy Roberts

Vermont Agency of Agriculture, Food & Markets

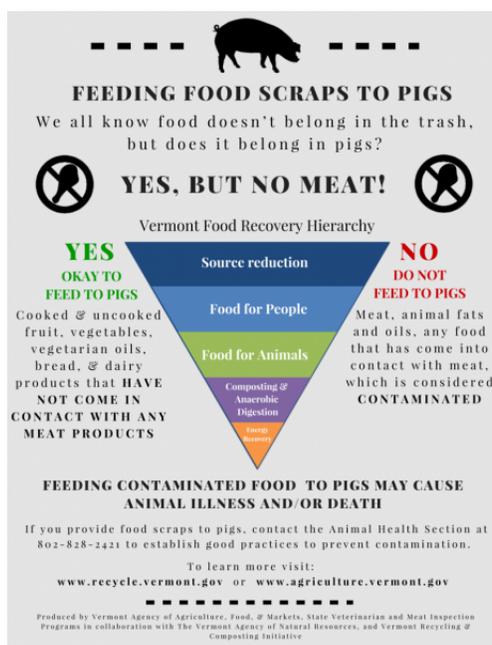
Division Narratives

Food Safety & Consumer Protection Division

DIVISION MISSION

The Food Safety and Consumer Protection Division had a productive year, improving its ability to respond to contagious disease outbreaks, managing through staff vacancies, and continuing to serve Vermont consumers, and the meat and dairy industries. The Division Sections include Animal Health; Meat Inspection; Dairy; Maple; Agricultural Products; the Apiary Program; and Weight's & Measures.

In order to fulfill its obligation of protecting animal health and public safety, the Animal Health Section of the Vermont Agency of Agriculture, Food and Markets has promulgated and maintains rules pertaining to livestock and companion animals.



ANIMAL HEALTH SECTION

The Animal Health Section of the Vermont Agency of Agriculture, Food, and Markets protects the health and welfare of Vermonters and their livestock and poultry by advancing a safe and secure food supply within a marketplace that provides fair and equal access to consumers and processors while enhancing Vermont's working landscape, rural character and local economies. Through its prudent enforcement programs, the Section maintains the ability of Vermont's poultry and livestock products to be sold locally, nationally and internationally. Successful administration of these programs directly supports the overall economic prosperity of the state's animal agriculture industries.

Vermont's livestock industry is valued at \$637 million dollars with large increases in both the swine and poultry industries in the past 10 years. The swine industry in VT is currently valued at \$820,000, up from \$157,000 in 2003. The poultry industry has increased in value from \$5.7 million dollars in 2006 to 12 million dollars in 2012 (source: NASS).

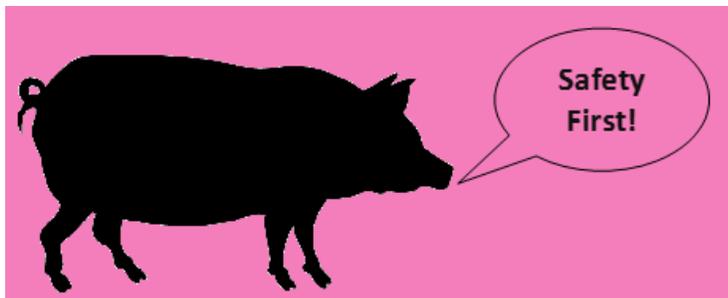
Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

ANIMAL HEALTH SECTION (cont.)

The Animal Health Section works diligently to maintain Vermont's disease-free status with USDA and does so successfully for swine brucellosis, pseudorabies, classical swine fever, cattle tuberculosis and brucellosis and chronic wasting disease. To maintain this status, the Section implements the disease eradication and control programs associated with the above diseases by coordinating the activities of field staff and providing disease testing and surveillance reports to USDA. Maintenance of disease-free status eliminates the need for additional interstate and international pre-export testing and associated costs for Vermont livestock producers. For example, Vermont is considered by USDA to be brucellosis free. Therefore, Vermont producers exporting their cattle to many other states will not need to perform brucellosis testing at their own expense. State veterinarians maintain certification as Foreign Animal Disease Diagnosticians and investigate veterinary, producer and laboratory reports of diseases of high economic impact such as Foot and Mouth Disease and African Swine Fever and completed 12 disease investigations in 2017.



Agency of Agriculture provided free biosecurity supplies to Vermont swine farmers in 2017. The goal of this program is to implement disease prevention practices, and help stop the transmission of diseases both onto and off of Vermont farms.

Vermont participated in a 2017 pilot study to test transitional swine (feeder pigs) for brucellosis in the wake of a swine brucellosis detection in a NY-based herd that impacted four states, including VT. Officials believe that the disease had been present in the index herd for more than a decade, and this finding supported the concern that the current federal brucellosis surveillance program does not reflect actual U.S. disease prevalence. This case also raised questions around interstate movement of disease suspects and reactors, employee safety in slaughter facilities and the allowability of labeling/marketing suspect or reactor livestock as organic or with other value-added nomenclature. The potential public health significance of increased prevalence of zoonotic diseases can not be understated, given the demand in Vermont of some advocacy groups to lessen or eliminate restrictions associated with raw milk consumption.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

ANIMAL HEALTH SECTION (cont.)

During the 2017 legislative session, the Animal Health Section worked with the House Agriculture Committee and their legislative counsel to update statutes that pertain to contagious disease control, livestock and poultry movement and industry member licensing. The most notable update is that Act 30 requires all livestock being transported within the State to be officially identified in accordance with CFR requirements for animals moving interstate. One of the goals of this initiative is to ultimately improve the traceability of livestock post-slaughter. During some disease investigation trace-outs, slaughter facility records may be needed months after the carcass has left the facility, and incomplete or nonexistent records prevent the accurate identification of the scope of the outbreak. This results in longer quarantine periods for larger numbers of producers and greater economic impact to those same farmers. The Section hopes to lessen these consequences with continued education of Vermont slaughter facility owners and managers. Act 30 also clarifies vague federal restrictions of livestock movement away from slaughter facilities once animals have arrived on the properties. This is an important step toward lessening the likelihood of disease spread due to unchecked movement of livestock with unknown health status.



Over the past 5 years, the University of Vermont has experienced cuts in extension educator positions. However, farmers still need disease prevention education and resources, particularly with the diversification of farms that is occurring, which can pose more of a disease risk through mingling of multiple livestock and poultry species. Animal Health Specialists work to fill this gap by providing technical assistance, outreach and education to livestock producers in their daily work in addition to specific initiatives, such as poultry biosecurity assessments, swine biosecurity assessments and implementation kits, and one-on-one assistance with livestock identification administration.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

ANIMAL HEALTH SECTION (cont.)

Vermont participated in the federal Voluntary National Chronic Wasting Disease Herd Certification Program from 2013 until 2017. This program allowed Vermont cervid (deer) producers to export animals to other states. However, in the 4 years of being an Approved State with USDA, no cervid producer exported deer or expressed interest in doing so. Additionally, the one herd with status certification for brucellosis and tuberculosis decided to drop that certification. Due to extensive time and resources required for this program, the Section decided to withdraw participation as of July 2017 to better utilize staff time. The captive cervid management program continues to consume considerable resources, and state veterinarians will be implementing an improvement plan in early 2018 to increase program efficiency.

To date, more than 50 veterinarians have been trained and six farms have become certified in the Food Armor® program. The Section obtained a federal grant to offset some program implementation costs and increase the likelihood that dairy farmers will utilize Food Armor® to reduce the incidence of violative drug residues in their bob calves and market cows. This program embodies a mindset shift away from a reactionary, enforcement-based program to a proactive initiative focused on technical assistance and resource empowerment.

- **Financial:** The Section administered \$225,875 in federal cooperative agreements and contracts, collected \$3850 in Pet Shop and \$15,650 in Livestock Dealer/Packer/Transporter Licenses, and imposed \$28,000 in Administrative Penalties.
- **Licenses and Registrations:** The Section issued 22 pet shop licenses; 55 livestock dealer licenses; 55 livestock transporter licenses; and 3 livestock packer licenses. The Section registered 14 fairs, 4 certified euthanasia shelters, 7 certified euthanasia technicians, certified 1 new euthanasia technician, and inspected 1 registered euthanasia shelter.
- **Animal Movement:** The Section ensured compliance and processed documentation for the export of 55,578 head of livestock and poultry from Vermont and the import of 148,790 head of livestock and poultry. The Section met with 2 veterinary clinics to discuss electronic Certificates of Veterinary Inspection.
- **Compliance Activity:** The Section issued 2 Notices of Violation and 10 Letters of Warning; reviewed 3,500 Equine Infectious Anemia test charts; attended 45 livestock sales events; completed 96 annual inspections of licensees and registered organizations; consulted on 9 animal welfare investigations; monitored 12 horse pulls for compliance.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

- **Farmed Cervid Herds:** VAAFM regulates 14 captive cervid (deer) facilities. To meet state requirements regarding Chronic Wasting Disease, fifty-eight samples from 7 herds were collected for Chronic Wasting Disease testing through slaughter or on-farm deaths.
- **National Poultry Improvement Plan Participants:** The Section provided technical assistance to 3 new NPIP participant to bring the total number of participant flocks in the state to ten. The Section provides quarterly to yearly testing of flocks for multiple diseases, including avian influenza.
- **Emergency Preparedness:** Section participated in a nation-wide Multi-Jurisdictional Animal Coordination Exercise, which was a Homeland Security Exercise and Evaluation Program (HSEEP) functional exercise and took place the week of July 11-14, 2017. Using virtual sandbox environments, players collaborated to exercise resource coordination during a major natural disaster affecting animals.
- **Traceability Activities:** 8 veterinarians were accredited through joint VAAFM and USDA sessions. 198,160 livestock identification tags were issued to dealer, producers, and veterinarians.
- **Disease Testing, Prevention, and Investigation:** The Section worked with one herd to meet the requirements to be a certified Johnes' vaccinated herd, bringing the state's total up to 2; the Section issued quarantines to 29 premises, 6 for rabies related issues; performed 5 disease investigations; tested birds at 9 poultry swaps and 10 fairs; performed 482 Avian Influenza tests and 1205 Pullorum tests. The Section performed compliance reviews on 2995 test chart submissions for tuberculosis testing in cattle, sheep, alpaca, and goats; 2744 brucellosis test submissions for cattle, sheep, alpaca, and goats; and 1649 Brucellosis vaccinations charts; and completed 31 Comparative Cervical Tests for tuberculosis.
- **Technical assistance** was provided at the twice-yearly Vermont Beef Producers Association sales, 14 fairs, 7 bird swaps, consumer emails and calls, and Levels II and IV Humane Investigation Classes.

*Adam's Turkey Farm
Westford, VT*



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

- Animal Health Section staff are spending considerable time educating and providing technical assistance to farmers and licensed dealers/transporters regarding statutory updates to Act 30 (affecting livestock movement in Vermont), which became effective on July 1, 2017. Staff have met with over 30 individual livestock producers to provide ear tags free of charge and answer questions relating to the law or the application of the tags.
- The Section awarded \$25,000 in FY2017 to two food animal veterinarians in conjunction with the Vermont Food Animal Veterinary Education Loan Repayment program, which helps to ensure an adequate numbers of food animal vets in VT.
- The Section continues to implement the Food Armor program, supported by a two-year federal grant. Six dairy farms are now Food Armor certified, a statistic that exceeds projections made in the work plan in late 2015.
- As interest in participation in the federal National Poultry Improvement Program has increased, the Section has updated program protocols to increase producer access and clarity around the program.
- Trained more than 50 veterinarians and offered grant money to dairy farmers in support of their efforts to ensure responsible use of antibiotics and other veterinary medications on their farms.
- 6 VT dairy farms have become certified in the Food Armor HACCP for Proper Drug Use Program.
- Implemented statutory changes requiring official ID of livestock during intrastate movement events.
- Refined Standard Operating Procedures (SOP's) for the management of various animal health programs, including the National Poultry Improvement Plan and the captive cervid regulatory program, ensuring better services to Vermonters.
- Continued employee cross-training through its implementation of the farmers' market audit program. This program lessens the accrual of staff over-

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

MEAT INSPECTION

The Meat Inspection Section provides mandatory daily inspection, compliance activities and technical assistance throughout the meat and poultry industry in Vermont, through a cooperative meat and poultry inspection program with USDA's Food Safety Inspection Service (FSIS). The Meat Inspection Service enforces State and Federal laws and regulations to protect the health and welfare of consumers and the public by assuring meat and poultry products produced in Vermont are wholesome, unadulterated, properly marked, labeled, and packaged.

The Vermont Meat Inspection Service provides food safety and inspectional oversight while providing invaluable information and technical assistance to farmers and small processors that wish to maintain a small family operation structure. This allows them to meet the regulatory requirements to compete in the open marketplace throughout the state. Additionally, if they wish to expand their markets to out-of-state, the Meat Inspection program aids in the transition to federal inspection. Additionally, the section fights for legislation that supports the efforts of those who have chosen to undertake businesses operating under inspection to help assure consumers of the safest food products available. The program also provides inspection at Federally Inspected establishments through a co-operative agreement with USDA's Food Safety and Inspection Service (FSIS).

- **Meat Inspection continues to provide technical assistance to producers. As a result, there were 80 new state inspected facilities in 2017, to a total of 2,026.**
- **Assisted several plants through state inspection to transition to Federal Inspection to increase access to markets across state lines**
- **Performed inspections for the federal government in locations USDA could not reach**
- **Worked with VT Legislature to help find a balance between food safety and economics for small business start-ups**
- **VAAFAM meat inspection program passed on-site review by USDA/FSIS and is deemed "equal to" the USDA/FSIS program.**

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

MEAT INSPECTION FACTS & FIGURES

- The Meat Inspection (MI) section worked with the Vermont Legislature to help find a balance between food safety and economics for small business start-ups in 2017. Defining requirements for poultry operations exempt from daily inspection, but still in need of proper sanitary facilities to help protect public health and mitigate possible risks was the focus of this effort. The result was the passage of the poultry slaughter exemptions.
- A licensed federal slaughter facility lost its federal grant of inspection and had its state license suspended for not being able to operate in a sanitary manner or meet the conditions of a long-standing consent order.
- A recall was initiated for uninspected Vermont product that was illegally marked with a federal mark of inspection. This follows a noted increase in misbranding related to exempt poultry processing.
- Humane handling continues to be an important topic for the state of Vermont, and for individuals outside of Vermont, based on the volume of public records requests, calls, on-line petitions, etc.
- A trend of non-compliance with truthful labelling related to ground beef fat % at retail has been noted, increased monitoring will continue, based on resources.
- 2 processing plants added including a state-inspected poultry slaughter facility with retail processing, and a new bacon plant.

Beef cattle graze a hillside at Maple Wind Farm in Huntington.

Photo courtesy: Maple Wind Farm.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

DAIRY SECTION

The Dairy Section continues to meet the demand of many producers wanting to diversify their dairy farm by processing their own milk into a value-added product, or businesses without a farming background wanting to purchase Vermont milk and manufacture different dairy products. Leading the way in guiding these efforts are the dairy product specialists: Brian Young, Laurel Junkins, Steven Volk, Justin Jeror, and their supervisor, Greg Lockwood. The dairy section treats each potential operation the same with technical assistance and inspection frequency no matter how large or small an operation is.

There have been many niche markets discovered over the years that have shown success for these producers. This success has created the interest for both large and small dairy processing businesses. The farm side of the dairy section continues to serve a vital role in ensuring milk produced on farms is safe and of high quality. The individuals out working with dairy farmers each day are the dairy farm specialists: Steven Nicholson, Eric Perkins, Ashley Hudson, and their supervisor, Sue James. Despite farm numbers following a declining national trend in total numbers, the size of the remaining dairy farms continues to expand. With this expansion, our dairy farm specialists serve a vital role in ensuring repairs and expansion construction meet the federal standards, and final inspections are done to ensure milk being shipped off the farm continues without delay for the farmers.

Beyond meeting inspection standards set by the FDA, the dairy section dealt with some diverse situations in FY17. The section continues to successfully work through challenges related to the sale of raw milk in VT. Of particular significance is the concern that some producers have regarding the section's right to inspect production facilities, signage and records when the owner is not present. This is not an issue with commercial farmers as they have a good understanding of, and respect for, state statutes pertaining to inspections completed by the Agency.

"It is vitally important to recognize the many ways our communities benefit from the dairy industry – from creating jobs and providing a healthy product, to keeping the landscape open and undeveloped."

Secretary Anson Tebbetts
VT Agency of Agriculture Food & Markets



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

DAIRY SECTION (cont.)

Another recent challenge for the dairy section was handling records and completing ratings that were required for different cooperatives due to the National Farmers Organization cooperative dropping its Vermont producers. Thankfully the 30 dairy farms impacted by this were picked up by other cooperatives. The dairy section worked extra hours to make sure all ratings and documentation that the FDA requires for a situation like this was completed promptly and no farm dealt with having to dump milk. Both dairy farming and dairy processing continue to play a large role in Vermont's economy, the dairy section is proud to serve in our role to ensure safe, high quality products for consumers.

DAIRY SECTION FY2017 FACTS & FIGURES

- Dairy Farm Inspections: 1,542
- Dairy Plant Inspections: 394
- Milk Plant Equipment tests: 253
- Technical assistance: 83
- Sampling stops: 826
- Enforcement Inspections: 74
- Miscellaneous Inspections (bulk milk hauler & milk tank truck): 152
- Number of new plants brought online: 8

2017 Fall Farm Photo Winner courtesy Tara Schatz, Bennington. This foliage season, the Agency of Agriculture teamed up with the Vermont Cheese Council to hold a fall farm photo contest to help showcase the beautiful barns, animals, orchards, foliage, and farm views that make Vermont so scenic. Tara beat out 60 other elaborate farm photos to claim the top spot.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

MAPLE PROGRAM

After 30+ years as the VT maple expert, former Section Chief Henry Marckres retired in October. The section spent considerable time reviewing the maple responsibilities held for decades by Henry and consumer protection specialists and opted to streamline that scope of work to enable employees to meet statutorily-required workload obligations to other sectors. Duties that ensure compliance with the maple regulations and laws, and that focus on enforcement actions when noncompliance is confirmed, are being prioritized, and others will be completed by other Divisions in VAAFAM or by Agency partner organizations. Discussions about this will continue into 2018. The section will welcome a new Consumer Protection Section Chief, Rachel Floyd, on January 7, 2018. Floyd brings to the table experience working within state/federal cooperative programs and interacting successfully with regulated entities and partner organizations.



*Fmr. Maple Section Chief
Henry Mackres*

AGRICULTURAL PRODUCTS

The Section completes a considerable scope of work in this sector, including the Good Agricultural Practices (GAP); Country of Origin Labeling (COOL); Apiary; and egg, strawberry, potato and maple inspection programs. The personnel transitions during the past year have presented the section with the opportunity to analyze each of these programs to determine its level of involvement in them going forward. With the Section's implementation of the produce safety program looming, continued analysis of each of these programs is necessary to ensure the Agency is meeting statutory requirements and the demands of Vermont producers in an efficient manner. There is opportunity for USDA to take responsibility for GAP and COOL audits within Vermont, but producers prefer state employees to complete them because of their responsiveness to producer needs and the more affordable inspection cost they can provide. After January 1, 2018, there will only be two inspectors dedicated to the support of the Section's seven programs, and these inspectors each have additional unrelated FTE scopes of work. The Agency must continue to make hard decisions regarding prioritization of these varied workloads that may displease some producers. In December, the division added the Agency's first inspector dedicated to supporting Vermont produce growers and helping them remain compliant with the produce safety rule promulgated under the Food Safety Modernization Act.

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

APIARY PROGRAM

The Apiary program has been managed with renewed vigor during 2017 by a new State Apiarist, but multiple shortfalls within this program have created significant management challenges. Considerable time was spent in 2017 trying to update the geographic information system (GIS) map that documents hive locations across the State, data that is essential during disease outbreak and quarantine mitigation. This effort has been hampered by the Agency's lack of internal staff expertise in electronic data mapping and by hive registration noncompliance within the industry. In early 2017, the State Apiarist collaborated with state veterinarians to host a Beekeeping 101 meeting for Vermont veterinarians interested in providing the services to Vermont beekeepers that are required by the Veterinary Feed Directive. The meeting was well-attended and will set the stage for more veterinary involvement in this important sector in the coming years. The Program also received hive management information from beekeepers in response to a survey that was sent to all registered owners. This information will be used to inform the future direction of the Apiary Program and will help focus the Agency's limited resources available to this important sector.



Photos courtesy:
Vermont Bee Keepers Association
www.vermontbeekeepers.org



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

WEIGHTS & MEASURES

The State Metrologist was assigned supervisory responsibilities for four(4) weights and measures -focused employees, one of whom completed in 2017 the formal training necessary to acquire signatory authority for the metrology laboratory and is being mentored to assume expanded lab-based duties. Adding program and personnel supervisory duties to the State Metrologist responsibilities will ensure that VAAFM metrology-focused programs are reviewed and modernized regularly, that program improvement plans submitted by field staff to improve program performance are incorporated as needed, and that the metrology lab continues to operate in a productive manner. Under this revised leadership structure, the program acquired a new L.P. gas prover and trailer, replacing a 50+ year old unreliable piece of equipment that was expensive and time consuming to maintain. In December of 2017, the VAAFM metrology laboratory received its Certificate of Metrological Traceability from the National Institute of Standards and Technology, allowing the lab to continue to perform regulatory duties and fee for service work for producers and businesses within and outside of Vermont.

- **Thousands of scale, package weighing, unit pricing and fuel quality inspections were conducted to ensure marketplace equity wherever these devices and items are used in commerce or sold.**
- **Thousands of maple syrup and sap hydrometers were tested prior to being sold in all maple producing areas of the United States.**
- **Thousands of weights were calibrated for customers from around New England.**
- **Lab staff continue to be involved with the new laboratory project now under way in Randolph and will continue to make transition plans as the project moves forward.**

The Weights and Measures (W&M) inspection program continued to see significant violations in price verification/scanner inspections. Multiple penalties were issued for violations and a press release was issued during May of 2017. The response to the release was positive and has improved compliance rates.



Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

WEIGHTS & MEASURES (CONT.)

- Certified GOOD AGRICULTURAL PRACTICES (GAP) auditors continued to provide annual services to approximately 25 Vermont farms whose voluntary GAP certification affords them expanded market access. As the number of farms requesting certification increases, the section will continue to search for creative ways to meet producer expectations while also meeting its obligations under the USDA cooperative agreement that defines VAAFM work in this area.**

Throughout Vermont and the country, thousands of weights and measures inspectors work diligently to enforce laws designed to not only protect consumers but to also develop a level playing field in commerce wherever a weight or measure is involved.



Device Type	Total Inspections	Approved	Rejected	Rejected & Closed for Use	Out of Service
Small Scales	2166	2054	76	17	19
Medium Scales	253	232	15	5	1
Vehicle Scales	176	159	16	1	0
Livestock	2	2	0	0	0
Hopper Scales	92	91	1	0	0
Fuel Pumps	6553	6244	195	14	100
Oil Truck Meters	454	398	20	13	23
Propane truck Meters	259	240	15	2	2
Linear Measures	18	17	0	0	1
DMV Wheel Load Weighers	200	194	6	na	na

Vermont Agency of Agriculture, Food & Markets

Division Narratives

Food Safety & Consumer Protection Division

WEIGHTS & MEASURES PACKAGE CHECKING INSPECTIONS:

	# of Lots	Packages Checked	Packages in Lot	# of Failed Lots	# of Failed Packages
Total Standard	3	31	61	1	8
Total Random	91	1724	1736	24	186
Total	94	1755	1797	25	194

PRICE VERIFICATION/SCANNER INSPECTIONS

Total Inspections	313
Passed	286
Failed	27
Businesses Inspected	158
Total Items Inspected	18,433

VIOLATIONS:

	Price Verification/ Scanners	Short Weight	Seals	Dollar Amount of Penalties Issued
Issued Warnings	11	6		
Issued Penalties	19	12	1	
Total	30	18	1	\$ 106,000.00

WEIGHTS & MEASURES LABORATORY*

Items Tested	Number Tested
Sap Hydrometers	1,387
Syrup Hydrometers	5,466
Weights	1,833
5-Gallon Measures	61
Total Items Tested	8,747

*Dates: 8-30-2016 through 9-1-2017

